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ABSTRACT

Goal-setting has been accepted as an effective motivational tool. Whether goals should be participatively set or assigned was examined by holding goal difficulty constant in an investigation based on previous results which suggested that participants in goal-setting set more difficult goals than those for whom goals are assigned. Results suggest that when goal difficulty is held constant, an assigned goal is as effective, and perhaps more effective, than a participatively set goal. Job performance, goal attainment, and goal acceptance are better in the assigned condition. (Author/CS)

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Effects of Goal Setting when Goal Difficulty is Held Constant

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Effects of Goal Setting when Goal Difficulty is Held Constant

It is now fairly well accepted that goal setting is an effective motivational tool (Latham & Yukl, 1975). Specific goals do better than general goals and difficult goals do better than easy ones. However, the research on the question of whether goals should be participatively set or assigned is still unanswered. One recent study by Latham, Mitchell and Dossett (in press) suggests that participatively set goals result in more difficult goals being set then when they are assigned. Thus, many previous studies comparing assigned versus participative conditions may be confounded by goal difficulty.

Latham and Saari (in press) have provided some support for this interpretation. In a laboratory study with a brainstorming task goal difficulty was held constant. They found no significant difference between the assigned and participative goal setting conditions on measures of performance, goal attainment or goal acceptance. The purpose of the following two studies was to examine further the effects of participative and assigned goal setting with goal difficulty held constant.

Study 1

Method

Sample and procedure. Sixty female clerical personnel participated in the study. The task consisted of a set of 300, 35mm slides, each containing a single integer arithmetic problem of not more than two digits (e.g., 3 + 2 =). The total number of problems was evenly divided among simple addition, subtraction, multiplication, and division. The order of the presentation was determined by randomly assigning one problem of each type to blocks of four slides. Each block was then randomly assigned in one of 24 permutations of the four arithmetic operations.

Each individual was seated facing a projection screen for viewing 35mm transparencies with a carousel slide projector. She controlled her own stimulus presentation rate by pressing a remote control button to advance to the next slide in the series. Each individual was tested separately.

The employees were given a practice trial of 10 slides to familiarize themselves with the test procedure. The individuals who had been randomly assigned to the participative group were shown the number of problems that a previous group of employees (N = 30) had solved in six minutes. Each individual was then asked to set a "difficult but attainable" goal for the number of problems that she herself would try to solve in six minutes.

In the assigned condition, the test administrator told the employee that setting a specific goal helps people to obtain high scores, and that he wanted her to "shoot for a goal of ___ problems solved during the next six minutes." The assigned goal was identical to one that had been agreed upon by a colleague in the corresponding participative condition. Thus, goal difficulty was held constant in the two goal specificity conditions.

The employees who were randomly assigned to the "do best" condition were simply instructed to do their best to answer as many problems as possible. The employees in all three conditions were told that they would work in three sessions of two minutes each. Each individual in the participative and assigned goal conditions was reminded of her goal prior to starting the test.

At the end of the six minute test period each employee was asked to complete a questionnaire which contained items designed to check the manipulation of the independent variable and assess goal difficulty and goal acceptance (see Latham et al., in press, for a description of this measure). We should also mention that half of the subjects received knowledge of their results (KOR) and half did not receive this information. However, the results from the KOR manipulation are part of a larger study and are not discussed further in this paper.

Results

Manipulation check. In response to the question, "Who set the goal?" every person in the participative condition responded with "me," and all the individuals in the assigned condition responded with "the test administrator." In response to the question, "How much influence did you have in setting the goal compared to the test administrator?" the respondents in the assigned condition responded on a scale from "considerably less than" (1) to "considerably more than" (5) with a mean of 1.40 (SD = .95) versus 4.65 (SD = .57) in the participative condition ($F = 150.30$, $df = 1,36$, $p < .001$).

Performance. A 3 x 2 x 3 analysis of variance (goal setting, KOR, trials) with repeated measures yielded a marginally significant effect for goal setting ($F = 2.92$, $df = 2,54$, $p < .057$). The mean number of problems solved per trial was 46.58 (SD = 7.13), 45.42 (SD = 8.98), and 41.48 (SD = 7.23) for the assigned, participative, and do best conditions, respectively.

Planned orthogonal comparisons indicated that performance in the combined assigned and participative groups ($\bar{X} = 46.00$, SD = 8.11) was significantly higher than in the do best condition ($\bar{X} = 41.08$, SD = 7.23) across trials ($F = 13.40$, $df = 1,128$, $p < .03$). That is, specific goals led to higher performance than did general goals. However, only the assigned goals led to higher performance than do best goals ($F = 5.05$, $df = 1,38$, $p < .03$). There was no significant difference in problems solved between those with do best goals and those with participatively set goals. Moreover, there was no significant difference in problems solved or goal acceptance between the assigned and participative goal setting conditions.

There was a significant difference ($F = 6.78$, $df = 1,36$, $p < .01$) between the assigned and participative goal setting conditions on goal attainment. Goal

attainment was expressed as a dichotomy. Only 10% of the individuals in the participative condition obtained their goal compared to 45% in the assigned condition.

Study 2

A limitation of the above study with regard to its generalizability is its time length, six minutes. For this reason, the study was replicated with employees from the same sample in a performance appraisal context over an eight month period. In this way the external validity of the above findings bould be examined with regard to time and task. On the basis of the previous findings, it was hypothesized that if there was a significant difference between assigned versus participatively set goals, the difference would be in favor of the assigned condition. Thus, one-tailed tests were used.

Sample and procedure. Twenty-eight of the sixty clerical personnel who participated in the previous study were randomly assigned to a participative or an assigned goal setting condition. The premeasure consisted of a series of behavioral observation scales (Latham & Wexley, 1977) with a total of 32 observable behaviors. Each behavior was rated on a scale of one to five in terms of its frequency of occurrence.

In the participative goal setting condition the supervisor reviewed the performance ratings with the employee and discussed areas of respective strengths and weaknesses. The supervisor then suggested to the employee that together they set a difficult but attainable goal (number of points on the BOS) to achieve by the next performance rating four months later. After discussing their ideas on an appropriate goal level, they settled on a goal agreeable to each of them.

In the assigned goal condition, the supervisor stated that setting a goal for the next performance appraisal might be helpful, and that she would like the employee to try to achieve a score of ___ points four months later. The supervisor

stated that although the goal might be somewhat difficult, she was confident the employee could attain it. The assigned goal was identical to that which set with the matched member in the participative condition.

Criterion measures. A questionnaire was administered after the first appraisal to assess the effectiveness of the manipulations. These items were also assessed after each of the subsequent appraisals.

Performance was calculated by adding together the employee's ratings scross the 32 behavioral items, the maximum possible score being 160 points. Three of these appraisals were made. The first rating took place before the goals were set. Four months later performance was measured and a new goal was set using the same procedures. A third performance rating was made four months after the second goal setting procedure. Goal attinment was scored as one or zero. Goal acceptance was measured by a scale of five items discussed by Latham et al. (in press)

Results

Reliability of measures. The internal consistency of the premeasure performance ratings yielded an alpha coefficient of .93 across the 32 behavioral items. The test-retest reliability coefficients among the three performance ratings, each taken three months apart, were .46 ($p < .002$) between the premeasure and the second rating, and .75 ($p < .001$) between ratings 2 and 3. The goal acceptance scale yielded coefficient alphas of .87 and .88 following the premeasure and the second performance appraisal, respectively. The test-retest reliability coefficient between these two ratings was .84.

Manipulation check. The participation manipulation was assessed by two items on a questionnaire administered following each performance appraisal. On a scale from one (none) to five (very much), individuals in the assigned and participative goal setting conditions responded to the question, "How much influence did you have over the behavioral goal that was set?" The assigned goal group have a

mean response of 2.29 (SD = 1.03) while the participative goal group mean was 3.43 (SD = 1.29, F = 6.21, df = 1,26, $p < .02$). Following time 2 ratings the means were 1.77 (SD = 1.01) and 3.21 (SD = 1.26) for the assigned and participative goal conditions, respectively (F = 10.12, df = 1,26, $p < .002$).

Tests and hypotheses. The performance premeasure was covaried with the subsequent performance appraisal rating to further adjust for any differences in effort or ability between the two samples. The adjusted performance measures for the second appraisal were 145.97 and 139.00 in the assigned and participative conditions, respectively (F = 2.97, df = 1,25, $p < .05$). However, no significant difference was found in the subsequent performance rating. Furthermore, no significant difference was found between the assigned and participative conditions on goal attainment during any rating period. Table 1 shows the performance data.

Insert Table 1 about here

While it would be wasy to conclude that the difference between the assigned and participative conditions wore off over time, a further analysis of the data does not allow us to judge this issue. Even though the assigned group performed better than the participative group during the first four months they did not have more difficult goals assigned for the second four month period. This is because their goals were yoked to those in the participative condition. Therefore, for many of the employees in the assigned condition, their goal was at or below their performance level for the second four months.

A significant difference in the first goal setting appraisal session was found on the measure of goal acceptance. Individuals in the assigned goal condition ($\bar{X}$ = 20.00, SD = 4.69) scored significantly higher (N = 3.50, df = 1,26, $p < .04$) on this measure than did individuals with participatively set goals

($\bar{X}$ = 17,21, SD = 4.66). While the mean in the subsequent sessions were in the same direction, the difference was not significant.

Discussion

The results of these two studies suggest that when goal difficulty is held constant, an assigned goal is as effective, and perhaps more effective, than participatively set goals. Data from one or both studies show that job performance, goal attainment, or goal acceptance is better in the assigned condition. If supervisors assign clear and difficult goals then an assignment process can lead to both high performance and acceptance.

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Table 1

Summary of Performance Data for Study 2

Goal Setting Conditions	Time 1 Premeasure	Time 2 Four Months			Time 3 Four Months		
	Performance	Goal	Performance	Percent Attainment	Goal	Performance	Percent Attainment
Assigned	128.57	138.29	146.14	64.3	145.36	145.57	35.7
Participative	129.44	138.29	139.14	57.1	145.36	144.27	35.7